

REMARKS

The specification is being amended at the paragraphs at page 2, lines 5-18 and page 2, lines 19-25 to correct typographical errors. No new matter is being introduced by way of these amendments.

Claims 1-60 are pending in the application. Claims 1, 13, 14, 19, 30, 31, 35, 40, 45, 47, 52, 55, and 58 are being amended. Claims 53, 54, 56, 57, 59, and 60 are being cancelled. No new matter is being introduced by way of these amendments.

Claims 14 and 31 are being amended to address the rejections under 35 U.S.C. § 112, paragraph 2. Support for the claim amendments is found on page 9, lines 23-26; page 10, lines 6-7; and page 12, line 11 of the specification as originally filed.

Before discussing the specific rejections of the Office Action at hand, Applicant believes a brief description of the invention as recited in claim 1 may be useful.

A system according to the principles of the present invention as recited in claim 1 optimizes content server selection for clients from among a plurality of servers in a packet communication network. Content server is referred to hereafter as “server.” The system also includes “a central server that maintains server selection weights, and, based on the weights, provides a candidate server list of at least two candidate servers for responding to a client request...” The central server is typically not a content server, and a candidate server is a server being considered for providing content to the client.

In a DNS protocol environment, Applicant’s invention as recited in claim 1 may leverage traditional DNS service as follows. A DNS server or proxy (hereafter, referred to as “DNS proxy”) receives a client request from the client and forwards the client request to the central server. Responsively, the central server sends a candidate server list of at least two candidate servers to the DNS proxy. The DNS proxy probes each of the candidate servers in the list and selects a best-fit server. In this DNS case, the first candidate server to respond to the probe is typically selected by the DNS server as the best-fit server, and that candidate server’s address is returned to the client.

Claims 1, 11-13, 16, 18, 19, 28-30, 33, 35, 38, 40, 43, 45, 47, 50, and 52-60 were rejected under 35 U.S.C. § 102(e) as being anticipated by Primak et al. (“Primak”) (U.S. Publ. No. 2001/0039585).

Primak discloses a DNS proxy similar to a traditional DNS proxy; however, instead of applying only an “available capacity” or “fastest response” criterion for selecting a server for a client, the Primak DNS proxy also considers “client connection quality” between the servers and the client to select the content server for the client. In other words, Primak adds an additional factor into traditional server selection in a DNS system, where the additional factor is provided by the content servers to the DNS proxy, as illustrated in Primak, Figure 7 and described in reference thereto on page 3, paragraph 0031.

From the point-of-view of Applicant’s invention as recited in claim 1, Primak is similar to a traditional DNS proxy, and, therefore, in some embodiments, such as embodiments recited in claims 2-7, can also be leveraged by Applicant’s invention in a manner similar to a traditional DNS proxy to aid in the content server selection process, as described above.

Moreover, Applicant’s claim 1 is being amended to distinguish more clearly over Primak (“candidate server list of at least two candidate servers”). In contrast, following selection of a server, Primak sends the server’s address (i.e., a candidate server selection list of exactly one) from the DNS proxy to the client, as indicated in Primak, Figure 7, “IP Address of Selected Cluster.”

Therefore, because Primak’s DNS proxy performs functions similar to a traditional DNS proxy that may be leveraged by Applicant’s invention and because Primak does not disclose every limitation of Applicant’s claim 1 as now amended (“candidate server list of at least two candidate servers”), Applicant respectfully submits that the rejection under 35 U.S.C. § 102(e) should be withdrawn.

Because claims 11-13, 16, and 18 depend from claim 1, these claims should be allowed for at least the same reasons.

Independent claim 19 is being amended to include similar limitations (“the candidate server selection list including at least two server addresses”) as amended claim 1. Therefore, for similar reasons as amended claim 1, amended claim 19 should be allowed under 35 U.S.C. § 102(e).

Because claims 28-30 and 33 depend from claim 19, these claims should be allowed for at least the same reasons.

Independent claims 35, 40, 45, and 47 are being amended to include similar limitations as amended claims 1 and 19. For similar reasons, Applicant respectfully submits that the rejections under 35 U.S.C. § 102(e) should be withdrawn.

Because claims 38, 43, and 50 depend from claims 35, 40, and 47, these claims should be allowed for at least the same reasons.

Independent claim 52 is being amended to include the limitations of claims 53 and 54. Independent claim 55 is being amended to include the limitations of claims 56 and 57. Independent claim 58 is being amended to include the limitations of claims 59 and 60. In each case, the independent claim is being amended to include “maintaining a count of the number of clients for which the server is providing service” and “reporting the count to a central server.” As disclosed in the specification as originally filed, at least at page 10, lines 18-25, “[t]he higher the count returned from the candidate servers, the higher the probability corresponding to the respective candidate server and, thus, the more likely in the future the respective candidate server is to be chosen than other servers during the candidate server selection process.

In contrast, Primak discloses at least in the abstract and page 3, paragraph 0031 that the server clusters each transmit to the system information regarding their available capacity and connection quality with the client. In response to the client’s request, the Primak system chooses and transmits to the client a pointer pointing to a server cluster whose associated available capacity exceeds a first threshold value and whose client connection quality exceeds a second threshold value.

In Applicant’s case, the higher the count, the more likely the server will be chosen to be included in the candidate server selection list. In Primak’s case, the higher the available capacity (i.e., lower the count) and the higher the client connection quality (i.e., lower the count), the more likely the server address will be selected for the client. Therefore, Applicant’s “count” and Primak’s “available capacity” and “client connection quality” cannot be the same. Accordingly, Applicant respectfully submits that amended claims 52, 55, and 58 distinguish over Primak and the rejections under 35 U.S.C. § 102(e) should be withdrawn.

Claims 2-7, 20-24, 32, 36, 39, 41, 44, 46, 48, and 51 were rejected under 35 U.S.C. §103(a) as being unpatentable over Primak. Because these claims depend from the independent claims, the above remarks apply. Therefore, because these claims depend from the independent claims, which were not rejected under 35 U.S.C. § 103(a), Applicant respectfully submits they should be allowed for at least the same reasons.

Claims 8-10, 25-27, 37, 42, and 49 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Primak in view of Guenthner et al. (USPN 6,134,588) ("Guenthner"). Because these claims depend from the independent claim, Applicant respectfully submits that they, too, should be allowed under 35 U.S.C. § 103(a).

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims (Claims 1-52, 55, and 58) pending after entry of this amendment are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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